

CONTENTS TO VOLUME 14

COMPUTATIONAL PHYSICS

Issue Page

- | | | |
|---|-----|---|
| 1 | 1 | Exponential-fitting methods for the numerical solution of the Schrodinger equation. A. Raptis and A.C. Allison |
| 1 | 7 | The computation of one-dimensional unsteady non-equilibrium flows with a method of characteristics utilizing exponential fitting. F. Demmig |
| 3 | 155 | Reduction of data from line, differential and surface probes in axially symmetric experiments. S. Ugniewski |
| 3 | 169 | Higher order multipoles and splines in plasma simulations. H. Okuda and C.Z. Cheng |
| 3 | 177 | An evaluation of the LACC program. A. Konrad |
| 3 | 185 | On the estimation of the equilibrium properties of the kinetic Ising model of ferromagnetism. C.H.J. Johnson |
| 3 | 313 | Book review. A.D. Gosman |
| 5 | 315 | An application of SCHOONSCHIP for algebraic calculations in quantum chemistry. P.-O. Nerbrant |
| 5 | 319 | Perturbation calculations for the spin up problem using REDUCE. I. Cohen and F. Bark |
| 5 | 447 | Book review. I.P. Grant |

COMPUTER PROGRAMS IN PHYSICS

Issue Page

- | | | |
|---|----|--|
| 1 | 13 | A compact program of the SCF-Xalpha scattered wave method. S. Katsuki, P. Palting and S. Huzinaga |
| 1 | 71 | Diagrammatic many-body perturbation expansion for atoms and molecules: I. General organization. D.M. Silver |
| 1 | 81 | Diagrammatic many-body perturbation expansion for atoms and molecules: II. Second-order and third-order ladder energies. D.M. Silver |
| 1 | 91 | Diagrammatic many-body perturbation expansion for atoms and molecules: III. Third-order ring energies. S. Wilson |

COMPUTER PROGRAMS IN PHYSICS (cont.)*Issue Page*

- | | | |
|---|-----|---|
| 1 | 99 | A program for calculating elastic scattering phase shifts for an electron colliding with a one-electron target using perturbation theory. E. McGreevy and A.L. Stewart |
| 1 | 109 | Reduced SU(3) CFP'S. D. Braunschweig |
| 1 | 121 | Calculation of wave-functions and collision matrix elements for one-electron diatomic molecules. A. Salin |
| 1 | 133 | DWBA program for heavy ion transfer reactions. P.J.A. Buttle |
| 1 | 145 | A general multi-configuration Hartree-Fock program. C.F. Fischer |
| 3 | 193 | I. A computer program for generation of a complete set of coordinates and force matrices for normal mode calculations of crystals and molecules. F.Y. Hansen |
| 3 | 219 | II. A program for computing normal modes of molecules, crystal phonon dispersion relations and structure factors for neutron inelastic scattering. F.Y. Hansen |
| 3 | 245 | III. A force constant adjuster program to obtain a least squares fit to observed frequencies of molecules and crystals. F.Y. Hansen |
| 3 | 255 | Exact Slater integrals. L.B. Golden |
| 3 | 261 | Spherical Bessel functions j_n and y_n of integer order and real argument. R.W.B. Ardill and K.J.M. Moriarty |
| 3 | 267 | Inner multiplicity of unitary groups. S. Thomas and M.T. Sunny |
| 3 | 273 | Inter-electron repulsion integrals for three-open-shell configurations in cubic symmetry. B. B. C. Daul and P. Day |
| 3 | 287 | Simulation of the growth of axially symmetric discharges between plane parallel electrodes. A.J. Davies, C.J. Evans and P.M. Woodison |
| 3 | 299 | A numerical calculation of multidimensional integrals. K. Zakrzewska, J. Dudek and W. Nazarewicz |
| 3 | 311 | Erratum notice. CFPJJ: fractional parentage coefficients for equivalent electrons in jj-coupling. I.P. Grant |
| 3 | 311 | Erratum notice. A program to calculate angular momentum coefficients in relativistic atomic structure - revised version. I.P. Grant |
| 5 | 327 | BNDPKG: a package of programs for the calculation of electronic energy bands by the LCAO method. C.S. Wang and J. Callaway |
| 5 | 367 | A new version of the general program to calculate atomic continuum processes using the R-matrix method. K.A. Berrington, P.G. Burke, M. Le Dourneuf, W.D. Robb, K.T. Taylor and Vo Ky Lan |
| 5 | 413 | Weight multiplicity for unitary groups. V. Amar, U. Dozzio and C. Oleari |
| 5 | 423 | ATHENE 1: a one-dimensional equilibrium-diffusion code. J.P. Christiansen, K.V. Roberts and J.W. Long |